

ABSTRACT

Teachers, Technology, and Primary Science: An Investigation Into Primary Teachers' Perceptions of, and Competencies in, Integrating Information and Communications Technology in Science Education Through a Model for Professional Development

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Although this school does not have a computer laboratory, it possesses some forms of Information and Communications Technology (ICT), which was provided as part of a science initiative by the researcher. Despite the regular delivery of constructivist science lessons, teachers cited a number of reasons for their decision not to use the equipment. These include: 1) lack of technical knowledge and skills in the use of the available technology, and 2) lack of pedagogical knowledge and skills on how to use the technology in their science lessons. This study reports on an investigation into a small group of primary school teachers' perceptions of, and competencies in, integrating ICT with primary science education, through a theoretical model for professional development. Data sources included interviews, model lesson plans, video recordings of lesson presentations, self- and peer evaluation checklists, and excerpts from the teachers' reflective journals. Findings indicated a positive shift in participants' perceptions of integrating ICT in science, and improved levels of technical and pedagogical competencies, confidence, and reflective practices.

Keywords: Science education; Science teachers; Primary school science; Perceptions; Information technology; Communication technology; Professional development; Trinidad and Tobago